

REMARKS

Applicant respectfully requests reconsideration and allowance of the subject application. Claims 1-23 and 25-58 remain pending, of which claims 1, 17-18, 35-36, 46, and 55 have been amended. Support for the amendments to the independent claims can be found in the Specification at least at p.17, line 21 to p.19, line 18 as described with reference to Fig. 3, and at least at p.25, line 16 to p.31, line 13 as described with reference to Fig. 6.

35 U.S.C. §103 Claim Rejections

Claims 1-23 and 25-58 are rejected under 35 U.S.C. §103(a) for obviousness over U.S. Patent No. 6,225,546 to Kraft et al. (hereinafter, "Kraft"), in view of U.S. Patent Publication No. 2002/0144587 to Naples et al. (hereinafter, "Naples") (*Office Action* p.2). Applicant respectfully traverses the rejection.

Kraft relates generally to a technique for summarizing audio data (*Kraft*, col.1, lines 23-24). Kraft describes that an audio composition is converted to MIDI format which is devoid of the structural information that contributes to the overall sound of an audio wave (*Kraft* col.5, lines 11-22). A MIDI analyzer arranges the song data into a standard format and a component parses the file into MIDI primitive data (*Kraft*, col.5, lines 42-45). A builder component analyses the MIDI data to detect repetitive patterns, and parses or breaks down the data into component parts to create a hierarchal structure representative of the song (e.g., into song, parts, tracks, measures, and notes) (*Kraft*, col.5, line 56 to col.6, line 9; Fig. 5). This summarization hierarchy is analyzed with algorithms to detect

1 the main melody part (*Kraft* col.6, lines 61-64; col.13, lines 43-44). The main
2 melody part is used as a representative thumbnail of the composition which is the
3 end product of Kraft (*Kraft*, col. 13, lines 45-46). Thus, Kraft describes breaking
4 down an audio composition, determining the melody part, and using the melody
5 part for a representative summary of the composition.

6 Contrary to breaking down an audio composition to determine a single
7 representative part as described in Kraft, Applicant describes audio wave data
8 playback in an audio generation system to create audio representations of, for
9 example, interactive applications such as video games and Web sites. Multiple
10 audio sources provide audio content (e.g., wave or MIDI track components) to a
11 performance manager that receives the audio content and utilizes segment
12 components to produce audio instructions for input to an audio rendition manager
13 (*Description* p.13, lines 1-9). The audio rendition manager provides various audio
14 data processing components that generate an audio rendition, i.e. process audio
15 data into audible sound (*Description* p.13, lines 1-9). The audio rendition
16 manager also provides real-time, interactive control over audio data processing.
17 Thus, whereas Kraft only describes breaking down a single audio file to determine
18 a thumbnail representative of the file, Applicant describes that multiple audio
19 sources can be utilized to generate an audio rendition.

20 The Office cites Naples for providing multiple audio wave sources, and
21 software for processing and the playback of audio wave track components, to
22 include MIDI track components. (*Office Action* pp.5-6; *Naples* Fig. 1;
23 ¶s [0009]-[0012] and ¶s [0014]-[0017]). Naples describes that an interactive
24 process on a computer plays a multipart data file which includes an interactive
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1 virtual instrument object and a global accompaniment object. The global
2 accompaniment file object includes a synthesizer control file and a sound
3 recording file. A virtual instrument management process generates a virtual
4 instrument to process the multipart data file and generate a performance for the
5 virtual instrument. An audio output process combines the performance with
6 information in the global accompaniment object to generate a hybrid performance
7 signal which is then provided to an audio amplification device. (*Naples* Fig. 1;
8 ¶s [0009]-[0011]).

9 Contrary to the process of *Naples*, Applicant describes the audio rendition
10 manager that includes various audio data processing components that generate the
11 audio rendition (*Description* p.13, lines 1-9; p.17, lines 21-25). The audio
12 rendition manager includes a mapping component, a synthesizer component, a
13 multi-bus component, and an audio buffers component – none of which are shown
14 or disclosed in either *Kraft* or *Naples*.

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16 **Claim 1** recites an audio generation system comprising “an audio rendition
17 manager that includes the audio processing component which generates the audio
18 rendition as streams of audio wave data, the audio rendition manager further
19 including audio buffers to process the audio wave data, and logical buses that each
20 correspond to one of the audio buffers, where each of the multiple streams of
21 audio wave data are assigned to one or more of the logical buses such that a
22 logical bus receives one or more of the streams of audio wave data from the audio
23 processing component and routes the streams of audio wave data to the
24 corresponding audio buffer”.

1 Kraft and/or Naples do not teach or suggest the feature(s) of an audio
2 rendition manager, as recited in amended claim 1, such as an audio processing
3 component, audio buffers, and logical buses that each correspond to one of the
4 audio buffers. Accordingly, independent claim 1 along with dependent
5 claims 2-17 are allowable over the Kraft-Naples combination for at least these
6 reasons, and Applicant requests that the §103 rejection be withdrawn.

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8 Claim 18 recites an audio generation system comprising “an audio
9 rendition manager that includes the audio processing component which generates
10 the audio rendition as streams of audio wave data, the audio rendition manager
11 further including audio buffers to process the audio wave data, and logical buses
12 that each correspond to one of the audio buffers, where each of the multiple
13 streams of audio wave data are assigned to one or more of the logical buses such
14 that a logical bus receives one or more of the streams of audio wave data from the
15 audio processing component and routes the streams of audio wave data to the
16 corresponding audio buffer”.

17 Kraft and/or Naples do not teach or suggest the feature(s) of an audio
18 rendition manager, as recited in amended claim 18, such as an audio processing
19 component, audio buffers, and logical buses that each correspond to one of the
20 audio buffers. Accordingly, independent claim 18 along with dependent
21 claims 19-23 and 25-35 are allowable over the Kraft-Naples combination for at
22 least these reasons, and Applicant requests that the §103 rejection be withdrawn.
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1 **Claim 36** recites a method comprising “instantiating an audio rendition
2 manager that includes the audio processing component which generates the audio
3 rendition as streams of audio wave data, the audio rendition manager further
4 including audio buffers to process the audio wave data, and logical buses that each
5 correspond to one of the audio buffers, where each of the multiple streams of
6 audio wave data are assigned to one or more of the logical buses such that a
7 logical bus receives one or more of the streams of audio wave data from the audio
8 processing component and routes the streams of audio wave data to the
9 corresponding audio buffer”.

10 Kraft and/or Naples do not teach or suggest the feature(s) of an audio
11 rendition manager, as recited in amended claim 36, such as an audio processing
12 component, audio buffers, and logical buses that each correspond to one of the
13 audio buffers. Accordingly, independent claim 36 along with dependent
14 claims 37-45 are allowable over the Kraft-Naples combination for at least these
15 reasons, and Applicant requests that the §103 rejection be withdrawn.

16 **Claim 46** recites a method comprising “instantiating an audio rendition
17 manager that includes the audio processing component which generates the audio
18 rendition as streams of audio wave data, the audio rendition manager further
19 including audio buffers to process the audio wave data, and logical buses that each
20 correspond to one of the audio buffers, where each of the multiple streams of
21 audio wave data are assigned to one or more of the logical buses such that a
22 logical bus receives one or more of the streams of audio wave data from the audio
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1 processing component and routes the streams of audio wave data to the
2 corresponding audio buffer”.

3 Kraft and/or Naples do not teach or suggest the feature(s) of an audio
4 rendition manager, as recited in amended claim 46, such as an audio processing
5 component, audio buffers, and logical buses that each correspond to one of the
6 audio buffers. Accordingly, independent claim 46 along with dependent
7 claims 47-54 are allowable over the Kraft-Naples combination for at least these
8 reasons, and Applicant requests that the §103 rejection be withdrawn.

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10 **Claim 55** recites computer readable media comprising computer executable
11 instructions that, when executed, direct an audio generation system to perform a
12 method comprising “instantiating an audio rendition manager that includes the
13 audio processing component which generates the audio rendition as streams of
14 audio wave data, the audio rendition manager further including audio buffers to
15 process the audio wave data, and logical buses that each correspond to one of the
16 audio buffers, where each of the multiple streams of audio wave data are assigned
17 to one or more of the logical buses such that a logical bus receives one or more of
18 the streams of audio wave data from the audio processing component and routes
19 the streams of audio wave data to the corresponding audio buffer”.

20 Kraft and/or Naples do not teach or suggest the feature(s) of an audio
21 rendition manager, as recited in amended claim 55, such as an audio processing
22 component, audio buffers, and logical buses that each correspond to one of the
23 audio buffers. Accordingly, independent claim 55 along with dependent
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1 claims 56-58 are allowable over the Kraft-Naples combination for at least these
2 reasons, and Applicant requests that the §103 rejection be withdrawn.

3
4 **Conclusion**

5 Pending claims 1-23 and 25-58 are in condition for allowance. Applicant
6 respectfully requests reconsideration and issuance of the subject application. If
7 any issues remain that preclude issuance of this application, the Examiner is urged
8 to contact the undersigned attorney before issuing a subsequent Action.

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10 Respectfully Submitted,

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